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<110> Protein Design Labs, Inc.
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<120> TREATMENT OF INFLAMMATORY BOWEL DISEASES WITH ANTI-IP10 ANTIBODIES

<130> 05882.0131.00PC01

<140> Not Yet Assigned
<141> 2004-11-10

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<160> 79

<170> PatentIn version 3.2

<210> 1
<211> 98
<212> PRT
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Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Thr Leu
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Ser Gly Ile Gln Gly Val Pro Leu Ser Arg Thr Val Arg Cys Thr Cys
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Ile Ser Ile Ser Asn Gln Pro Val Asn Pro Arg Ser Leu Glu Lys Leu
35 40 45

Glu Ile Ile Pro Ala Ser Gln Phe Cys Pro Arg Val Glu Ile Ile Ala
50 55 60

Thr Met Lys Lys Lys Gly Glu Lys Arg Cys Leu Asn Pro Glu Ser Lys
65 70 75 80

Ala Ile Lys Asn Leu Leu Lys Ala Val Ser Lys Glu Arg Ser Lys Arg
85 90 95

Ser Pro

<210> 2
<211> 98
<212> PRT
<213> Homo sapiens

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Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Thr Leu

1 5 10 15

Ser Gly Ile Gln Gly Val Pro Leu Ser Arg Thr Val Arg Cys Thr Cys
20 25 30

Ile Ser Ile Ser Asn Gln Pro Val Asn Pro Arg Ser Leu Glu Lys Leu
35 40 45

Glu Ile Ile Pro Ala Ser Gln Phe Cys Pro Arg Val Glu Ile Ile Ala
50 55 60

Thr Met Lys Lys Lys Gly Glu Lys Arg Cys Leu Asn Pro Glu Ser Lys
65 70 75 80

Ala Ile Lys Asn Leu Leu Lys Ala Val Ser Lys Glu Arg Ser Lys Arg
85 90 95

Ser Pro

<210> 3
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<212> PRT
<213> Mus sp.

<400> 3

Gln Ile Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Ser Met His Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
35 40 45

Gly Trp Ile Asn Thr Glu Ile Gly Glu Pro Thr Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Ala Phe Ser Leu Glu Thr Ser Ala Ser Thr Ala Tyr
65 70 75 80

Leu Gln Ile Asn Asn Leu Lys Asn Glu Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Asn Tyr Asp Tyr Asp Ala Tyr Phe Asp Val Trp Gly Ala Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
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<210> 4
<211> 107

<212> PRT
<213> Mus sp.

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Gly Lys Val Thr Ile Thr Cys Lys Ala Asp Gln Asp Ile Asn Lys Tyr
20 25 30

Ile Ala Trp Tyr Gln His Lys Pro Gly Arg Gly Pro Arg Leu Leu Leu
35 40 45

His His Thr Ser Thr Leu Gln Pro Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Arg Asp Tyr Ser Phe Ser Ile Ser Asn Leu Glu Pro
65 70 75 80

Ala Asp Ile Ala Thr Tyr Tyr Cys Leu Gln Tyr Asp Ser Leu Leu Phe
85 90 95

Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105

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<400> 5

Asp Tyr Ser Met His
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<210> 6
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<212> PRT
<213> Mus sp.

<400> 6

Trp Ile Asn Thr Glu Ile Gly Glu Pro Thr Tyr Ala Asp Asp Phe Lys
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Gly

<210> 7
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<213> Mus sp.

<400> 7

Asn Tyr Asp Tyr Asp Ala Tyr Phe Asp Val
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<210> 8
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Lys Ala Asp Gln Asp Ile Asn Lys Tyr Ile Ala
1 5 10

<210> 9
<211> 7
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<400> 9

His Thr Ser Thr Leu Gln Pro
1 5

<210> 10
<211> 9
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Leu Gln Tyr Asp Ser Leu Leu Phe Thr
1 5

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<211> 414
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tgcaaggctt ctggttatac cttcacagac tattcaatgc actgggtgaa gcaggctcca 180

ggaaagggtt taaagtggat gggctggata aacactgaga ttggtgagcc aacatatgca 240

gatgacttca agggacggtt tgccttctct ttggaaacct ctgccagcac tgcctatttg 300

cagatcaaca acctcaaaaa tgaggacacg gctacatatt tctgtgctag aaactatgat 360

tacgacgcgt acttcgatgt ctggggcgca gggaccacgg tcaccgtctc ctca 414

<210> 12
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atcacttgca aggcagacca agacattaac aagtatatag cttggtacca acacaagcct 180

ggaagaggtc ctaggctgct cctacatcac acatctacat tacagccagg catcccatca 240

aggttcagtg gaagtgggtc tgggagagat tattccttca gcatcagcaa cctggagcct 300

gcagatattg caacttatta ttgtctacag tatgatagtc ttctattcac gttcggctcg 360

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<210> 13
<211> 119
<212> PRT
<213> Homo sapiens

<400> 13

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
35 40 45

Gly Trp Ile Asn Thr Glu Ile Gly Glu Pro Thr Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Thr Phe Thr Leu Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asn Tyr Asp Tyr Asp Ala Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 14
<211> 87
<212> PRT
<213> Homo sapiens

<400> 14

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Trp Val
20 25 30

Gln Gln Ala Pro Gly Lys Gly Leu Glu Trp Met Gly Arg Val Thr Ile
35 40 45

Thr Ala Asp Thr Ser Thr Asp Thr Ala Tyr Met Glu Leu Ser Ser Leu

50 55 60

Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr Trp Gly Gln Gly
65 70 75 80

Thr Thr Val Thr Val Ser Ser
85

<210> 15
<211> 107
<212> PRT
<213> Homo sapiens

<400> 15

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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Asp Arg Val Thr Ile Thr Cys Lys Ala Asp Gln Asp Ile Asn Lys Tyr
20 25 30

Ile Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Leu
35 40 45

His His Thr Ser Thr Leu Gln Pro Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Arg Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Leu Gln Tyr Asp Ser Leu Leu Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 16
<211> 80
<212> PRT
<213> Homo sapiens

<400> 16

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Trp Tyr Gln Gln Lys Pro Gly Lys Ala
20 25 30

Pro Lys Leu Leu Ile Tyr Gly Val Pro Ser Arg Phe Ser Gly Ser Gly
35 40 45

Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu Asp
50 55 60

Ile Ala Thr Tyr Tyr Cys Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
65 70 75 80

<210> 17
<211> 412
<212> DNA
<213> Homo sapiens

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gtgctcagtg tgacatccag atgacacagt ctccatcctc actgtctgca tctgtgggag 120

acagagtcac catcacttgc aaggcagacc aagacattaa caagtatata gcttggtacc 180

aacagaagcc tggaaaggct cctaagctgc tcctacatca cacatctaca ttacagccag 240

gcatcccatc aaggttcagt ggaagtgggt ctggaagaga ttataccttc accatcagca 300

gcctgcagcc tgaagatatt gcaacttatt attgtctaca gtatgatagt cttctattca 360

cgttcggcca ggggacaaag ttggaaataa aacgtaagta ctttttttcta ga 412

<210> 18
<211> 127
<212> PRT
<213> Homo sapiens

<400> 18

Met Arg Pro Ser Ile Gln Phe Leu Gly Leu Leu Leu Phe Trp Leu His
1 5 10 15

Gly Ala Gln Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
20 25 30

Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Lys Ala Asp Gln Asp
35 40 45

Ile Asn Lys Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
50 55 60

Lys Leu Leu Leu His His Thr Ser Thr Leu Gln Pro Gly Ile Pro Ser
65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Arg Asp Tyr Thr Phe Thr Ile Ser
85 90 95

Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Leu Gln Tyr Asp
100 105 110

Ser Leu Leu Phe Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
115 120 125

<210> 19
<211> 446
<212> DNA

<213> Homo sapiens

<400> 19
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tccaatgtga ggtccagttg gtgcagtctg gagctgaggt gaagaagcct ggagcgacag 120

tcaagatctc ctgcaaagtg tctggttata ccttcacaga ctattcaatg cactgggtta 180

ggcaggctcc aggaaagggt ctaaagtgga tgggctggat aaacactgag attggtgagc 240

caacatatgc agatgacttc aagggacggt ttaccttcac tttggacacc tctaccagca 300

ctgcctatat ggagctcagc agcctccgaa gtgaggacac ggctgtatat tactgtgcta 360

gaaactatga ttacgatgcg tacttcgatg tctggggcca agggaccaca gtcaccgtct 420

cctcaggtaa gaatggccac tctaga 446

<210> 20
<211> 136
<212> PRT
<213> Homo sapiens

<400> 20

Met Asp Ser Arg Leu Asn Leu Val Phe Leu Val Leu Ile Leu Lys Gly
1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20 25 30

Pro Gly Ala Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe
35 40 45

Thr Asp Tyr Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Lys Trp Met Gly Trp Ile Asn Thr Glu Ile Gly Glu Pro Thr Tyr Ala
65 70 75 80

Asp Asp Phe Lys Gly Arg Phe Thr Phe Thr Leu Asp Thr Ser Thr Ser
85 90 95

Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Asn Tyr Asp Tyr Asp Ala Tyr Phe Asp Val Trp
115 120 125

Gly Gln Gly Thr Thr Val Thr Val
130 135

<210> 21
<211> 75
<212> DNA
<213> Artificial

<220>
<223> Primer

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ggtgtccaat gtgag 75

<210> 22
<211> 72
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 22
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gacacctttg ag 72

<210> 23
<211> 74
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 23
agaagcctgg agcgacagtc aagatctcct gcaaagtgtc tggttatacc ttcacagact 60

attcaatgca ctgg 74

<210> 24
<211> 72
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 24
gtgtttatcc agcccatcca ctttagaccc tttcctggag cctgcctaac ccagtgcatt 60

gaatagtctg tg 72

<210> 25
<211> 74
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 25
tggatgggct ggataaacac tgagattggt gagccaacat atgcagatga cttcaaggga 60

cggtttacct tcac 74

<210> 26
<211> 78
<212> DNA

<213> Artificial

<220>
<223> Primer

<400> 26
tcctcacttc ggaggctgct gagctccata taggcagtgc tggtagaggt gtccaaagtg 60

aaggtaaacc gtcccttg 78

<210> 27
<211> 78
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 27
cagcagcctc cgaagtgagg acacggctgt atattactgt gctagaaact atgattacga 60

tgcgtacttc gatgtctg 78

<210> 28
<211> 77
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 28
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catcgaagta cgcatcg 77

<210> 29
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 29
tataacgcgt ccaccatgga ctcg 24

<210> 30
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 30
tatatctaga gtggccattc ttac 24

<210> 31
<211> 72
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 31
tataacgcgt ccaccatgag accgtctatt cagttcctgg ggctcttgtt gttctggctt 60

catggtgctc ag 72

<210> 32
<211> 75
<212> DNA
<213> Artificial

<220>
<223> Primer

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ccatgaagcc agaac 75

<210> 33
<211> 71
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 33
ctgtctgcat ctgtgggaga cagagtcacc atcacttgca aggcagacca agacattaac 60

aagtatatag c 71

<210> 34
<211> 72
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 34
tgatgtagga gcagcttagg agcctttcca ggcttctgtt ggtaccaagc tatatacttg 60

ttaatgtctt gg 72

<210> 35
<211> 68
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 35
tcctaagctg ctcctacatc acacatctac attacagcca ggcatcccat caaggttcag 60

tggaagtg 68

<210> 36
<211> 62
<212> DNA

<213> Artificial

<220>
<223> Primer

<400> 36
tgcaggctgc tgatggtgaa ggtataatct cttccagacc cacttccact gaaccttgat 60

gg 62

<210> 37
<211> 76
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 37
cttcaccatc agcagcctgc agcctgaaga tattgcaact tattattgtc tacagtatga 60

tagtcttcta ttcacg 76

<210> 38
<211> 78
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 38
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tagaagacta tcatactg 78

<210> 39
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 39
tataacgcgt ccaccatgag accg 24

<210> 40
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 40
tatatctaga aaaaagtact tacg 24

<210> 41
<211> 119
<212> PRT
<213> Mus sp.

<400> 41

Gln Ile Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Ser Met His Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
35 40 45

Gly Trp Ile Asn Thr Glu Thr Gly Glu Pro Thr Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Ala Phe Ser Leu Glu Thr Ser Ala Ser Thr Ala Tyr
65 70 75 80

Leu Gln Ile Asn Asn Leu Lys Asn Glu Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Asn Tyr Asp Tyr Asp Gly Tyr Phe Asp Val Trp Gly Ala Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 42
<211> 107
<212> PRT
<213> Mus sp.

<400> 42

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Leu Gly
1 5 10 15

Gly Lys Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Ile Asn Lys Tyr
20 25 30

Ile Ala Trp Tyr Gln His Lys Pro Gly Lys Gly Pro Arg Leu Leu Ile
35 40 45

His Tyr Thr Ser Thr Leu Gln Pro Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Arg Asp Tyr Ser Phe Ser Ile Ser Asn Leu Glu Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Leu Gln Tyr Asp Asn Leu Leu Phe
85 90 95

Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 43
<211> 414
<212> DNA
<213> Mus sp.

<400> 43
atggcttggg tgtggacctt gctattcctg atggcagctg cccaaagtat ccaagcacag 60

atccagttgg tgcagtctgg acctgagctg aagaagcctg gagagacagt caagatctcc 120

tgcaaggctt ctggttatac cttcacagac tattcaatgc actgggtgaa gcaggctcca 180

ggaaagggtt taaagtggat gggctggata aacactgaga ctggtgagcc aacatatgca 240

gatgacttca agggacggtt tgccttctct ttggaaacct ctgccagcac tgcctatttg 300

cagatcaaca acctcaaaaa tgaggacacg gctacatatt tctgtgctag aaactatgat 360

tacgacgggt acttcgatgt ctggggcgca gggaccacgg tcaccgtctc ctca 414

<210> 44
<211> 381
<212> DNA
<213> Mus sp.

<400> 44
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gacatccaga tgacacagtc tccatcctca ctgtctgcat ctctgggagg caaagtcacc 120

atcacttgca aggcaagcca agacattaac aagtatatag cttggtacca acacaagcct 180

ggaaaaggtc ctaggctgct catacattac acatctacat tacagccagg catcccatca 240

aggttcagtg gaagtgggtc tgggagagat tattccttca gcatcagcaa cctggagcct 300

gaagatattg caacttatta ttgtctacag tatgataatc ttctattcac gttcggctcg 360

gggacaaagt tggaaataaa a 381

<210> 45
<211> 119
<212> PRT
<213> Homo sapiens

<400> 45

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
35 40 45

Gly Trp Ile Asn Thr Glu Thr Gly Glu Pro Thr Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Thr Phe Thr Leu Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asn Tyr Asp Tyr Asp Gly Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 46
<211> 107
<212> PRT
<213> Homo sapiens

<400> 46

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Ile Asn Lys Tyr
20 25 30

Ile Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

His Tyr Thr Ser Thr Leu Gln Pro Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Arg Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Leu Gln Tyr Asp Asn Leu Leu Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 47
<211> 412
<212> DNA
<213> Homo sapiens

<400> 47
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gtgctcagtg tgacatccag atgacacagt ctccatcctc actgtctgca tctgtgggag 120

acagagtcac catcacttgc aaggcaagcc aagacattaa caagtatata gcttggtacc 180

aacagaagcc tggaaaggct cctaagctgc tcatacatta cacatctaca ttacagccag 240

gcatcccatc aaggttcagt ggaagtgggt ctggaagaga ttataccttc accatcagca 300

gcctgcagcc tgaagatatt gcaacttatt attgtctaca gtatgataat cttctattca 360

cgttcggcca ggggacaaag ttggaaataa aacgtaagta ctttttttcta ga 412

<210> 48
<211> 127
<212> PRT
<213> Homo sapiens

<400> 48

Met Arg Pro Ser Ile Gln Phe Leu Gly Leu Leu Leu Phe Trp Leu His
1 5 10 15

Gly Ala Gln Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
20 25 30

Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp
35 40 45

Ile Asn Lys Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
50 55 60

Lys Leu Leu Ile His Tyr Thr Ser Thr Leu Gln Pro Gly Ile Pro Ser
65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Arg Asp Tyr Thr Phe Thr Ile Ser
85 90 95

Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Leu Gln Tyr Asp
100 105 110

Asn Leu Leu Phe Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
115 120 125

<210> 49
<211> 446
<212> DNA
<213> Homo sapiens

<400> 49
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tcaagatctc ctgcaaagtg tctggttata ccttcacaga ctattcaatg cactgggtta 180

ggcaggctcc aggaaagggt ctaaagtgga tgggctggat aaacactgag actggtgagc 240

caacatatgc agatgacttc aagggacggt ttaccttcac tttggacacc tctaccagca 300

ctgcctatat ggagctcagc agcctccgat ccgaggacac ggctgtatat tactgtgcta 360

gaaactatga ttacgatggg tacttcgatg tctggggcca agggaccaca gtcaccgtct 420

cctcaggtaa gaatggccac tctaga 446

<210> 50
<211> 138
<212> PRT
<213> Homo sapiens

<400> 50

Met Asp Ser Arg Leu Asn Leu Val Phe Leu Val Leu Ile Leu Lys Gly
1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20 25 30

Pro Gly Ala Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe
35 40 45

Thr Asp Tyr Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Lys Trp Met Gly Trp Ile Asn Thr Glu Thr Gly Glu Pro Thr Tyr Ala
65 70 75 80

Asp Asp Phe Lys Gly Arg Phe Thr Phe Thr Leu Asp Thr Ser Thr Ser
85 90 95

Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Asn Tyr Asp Tyr Asp Gly Tyr Phe Asp Val Trp
115 120 125

Gly Gln Gly Thr Thr Val Thr Val Ser Ser
130 135

<210> 51
<211> 75
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 51
tataacgcgt ccaccatgga ctcgaggttg aacttggtat tcctggtgct aattctcaaa 60

ggtgtccaat gtgag 75

<210> 52
<211> 72
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 52
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gacacctttg ag 72

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gaatagtctg tg 72

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aaggtaaacc gtcccttg 78

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tgggtacttc gatgtctg 78

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Gly

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Asn Tyr Asp Tyr Asp Gly Tyr Phe Asp Val
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<210> 76
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Tyr Thr Ser Thr Leu Gln Pro
1 5

<210> 77
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<400> 77

Leu Gln Tyr Asp Asn Leu Leu Phe Thr
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<213> Homo sapiens

<400> 78

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
35 40 45

Gly Trp Ile Asn Thr Glu Thr Gly Glu Pro Ile Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Thr Phe Thr Leu Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asn Tyr Asp Tyr Asp Gly Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 79
<211> 119
<212> PRT
<213> Homo sapiens

<400> 79

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
35 40 45

Gly Trp Ile Asn Thr Glu Thr Gly Glu Pro Thr Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Thr Phe Thr Leu Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asn Tyr Asp Tyr Asp Ala Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115